REMARKS

The Office Action of August 24, 2006 has been carefully considered.

It is noted that the Examiner requires restriction between claims 1-2 and claims 3-9. Applicant affirms that the invention of claims 1-2 is selected for prosecution in the present application.

Claim 1 is rejected under 35 U.S.C. 102(e) over the patent to Kumar, et al..

Claim 2 is rejected as being unpatentable over Kumar.

In view of the Examiner's rejections of the claims, applicant has amended independent claim 1.

It is respectfully submitted that the claims now on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the reference.

Turning now to the reference, it can be seen that Kumar, et al. disclose refractory metals with improved adhesion strength. Kumar, et al. only discloses wires made from $NbZr_1$%. Furthermore, Kumar, et al. only disclose enriching oxygen at the surface of the wire (see column 2, lines 27-29 and 61-62, and column 3, lines 4-5 and 16-17), but give no disclosure of enriching the oxygen of the bulk material of the wire, as in the presently claimed invention. The reason for this is that Kumar, et al. aim to enhance the connection between the powder and wire. Obtaining this objective gives no suggestion for enriching

the oxygen in the bulk of the wire. Kumar, et al.'s method does not improve the heat stability of Nb wires, as is accomplished with the presently claimed invention.

Kumar, et al.'s examples refer to pure Ta and $NbZr_1$%. The reason for using the $NbZr_1$ alloy is that in pure Nb course grains will form when oxygen is not homogenously distributed throughout the bulk material. The wires will completely fail when the temperatures given in Kumar, et al. are applied.

Furthermore, the applicants have melted Kumar, et al.'s $NbZr_1$%. The result was that $NbZr_1$ fails when the temperatures of the present invention (1200-1400°C) are applied because Zr vapors will form. Thus, the material disclosed by Kumar, et al. is not suitable for the presently claimed high temperature resistant wires and thus Kumar, et al. do not disclose the presently claimed invention.

In view of these considerations, it is respectfully submitted that the rejection of claim 1 under 35 U.S.C. 102(e) and the rejection of claim 2 under 35 U.S.C. 103(a) over the above-discussed reference are overcome and should be withdrawn.

Reconsideration and allowance of the presently application are respectfully requested.

In the event any actual fee is greater than any payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 06-2143.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450:

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Signature

October 20, 2006
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Respectfully submitted,

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